

20266
Peacock

MARK BORSUK
Attorney at Law
(415) 922-4740 / FAX 922-1485
mark@borsuk.com / www.borsuk.com
1626 Vallejo Street
San Francisco, CA 94123-5116

October 17, 2001

Mr. Thomas Peacock
Supervising HMS, LOP
ACHCSA
1131 Harbor Bay Parkway
Alameda, CA 94501
(510) 567-6700 / FAX 337-9335
tpeacock@co.alameda.ca.us

SUBJECT: IIIQ01 Monitoring Report
1432 Harrison Street, Oakland, CA 94612
SITE ID 498

Dear Mr. Peacock:

Attached is the IIIQ01 groundwater monitoring data for the above site. If you have a question, please contact me.

Sincerely yours



Mark Borsuk

C A M B R I A

October 11, 2001

Mr. Mark Borsuk, Esq.
1626 Vallejo St.
San Francisco, CA 94123-5116

Re: **Groundwater Monitoring Report
Third Quarter 2001**
1432 Harrison Street
Oakland, California
Cambria Project #540-0188



Dear Mr. Borsuk:

As you requested, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report for the above-referenced site. Presented in the report are the third quarter 2001 activities and results and the anticipated fourth quarter 2001 activities. Attached are two additional copies for submittal to the regulatory agency.

If you have any questions or comments regarding this report, please call me at (510) 450-1983.

Sincerely,
Cambria Environmental Technology, Inc.

A handwritten signature in cursive script, appearing to read 'Ron Scheele'.

Ron Scheele, RG
Senior Geologist

Attachments: Groundwater Monitoring Report, Third Quarter 2001

Oakland, CA
San Ramon, CA
Sonoma, CA

**Cambria
Environmental
Technology, Inc.**

1144 65th Street
Suite 8
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

C A M B R I A

GROUNDWATER MONITORING REPORT

THIRD QUARTER 2001

1432 Harrison Street
Oakland, California
Cambria Project #540-0188

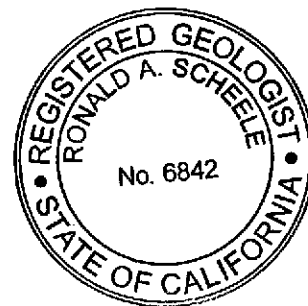
October 11, 2001


Prepared for:

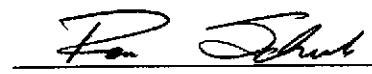
Mr. Mark Borsuk, Esq.
1626 Vallejo St.
San Francisco, CA 94123-5116

Prepared by:

Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, California 94608




Matthew A. Meyers
Staff Geologist


Ron Scheele, RG
Senior Geologist

GROUNDWATER MONITORING REPORT

THIRD QUARTER 2001

1432 Harrison Street
Oakland, California
Cambria Project #540-0188-030

October 11, 2001

INTRODUCTION

On behalf of Mr. Mark Borsuk, Esq., Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report for the above-referenced site (see Figure 1). Presented below are the third quarter 2001 activities and results and the anticipated fourth quarter 2001 activities.

THIRD QUARTER 2001 ACTIVITIES AND RESULTS

Monitoring Activities

Field Activities: On August 27, 2001, Cambria conducted quarterly monitoring activities. Cambria gauged and inspected for separate-phase hydrocarbons (SPH) wells MW-1 through MW-6 (see Figure 1). Groundwater samples were collected from all wells not containing SPH. Field Data Sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8020. Any samples containing MTBE were further analyzed for MTBE using EPA Method 8260. Analytical results are included as Appendix B. Groundwater elevations are shown on Figure 1.

Monitoring Results

Groundwater Flow Direction: Based on depth-to-water measurements collected during Cambria's August 27, 2001 site visit, groundwater flow beneath the site is divided. On the south side of the former USTs, groundwater flows toward the south-southwest at a rate of 0.022 feet/feet, while on the north side of the former USTs, groundwater flows toward the north-northeast at a rate of 0.019 feet/feet (Figure 1). This is consistent with historical groundwater flow rates and directions.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations detected this quarter are consistent with previous sampling events. No SPH were detected in any of the wells. The maximum TPHg and benzene concentrations were detected in well MW-1 at 130,000 and 24,000 micrograms per liter ($\mu\text{g/L}$), respectively. No MTBE concentrations were detected in any of the wells at the site.

Corrective Action Activities

Remediation System: Cambria received an air permit from the Bay Area Air Quality Management District allowing construction of the remediation system to begin. During the third quarter, Cambria assisted in obtaining a sidewalk encroachment permit and scheduled system construction to begin on October 2, 2001.

ANTICIPATED FOURTH QUARTER 2001 ACTIVITIES

Groundwater Sampling: Cambria will gauge all wells, check the wells for SPH, and collect groundwater samples from wells MW-1, MW-2, MW-4, MW-5, and MW-6. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8020. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Remediation System: Cambria plans to complete soil vapor extraction/air sparging (SVE/AS) system installation and perform system startup and operation during the fourth quarter 2001.

APPENDIXES

Figure 1- Groundwater Elevation Contours

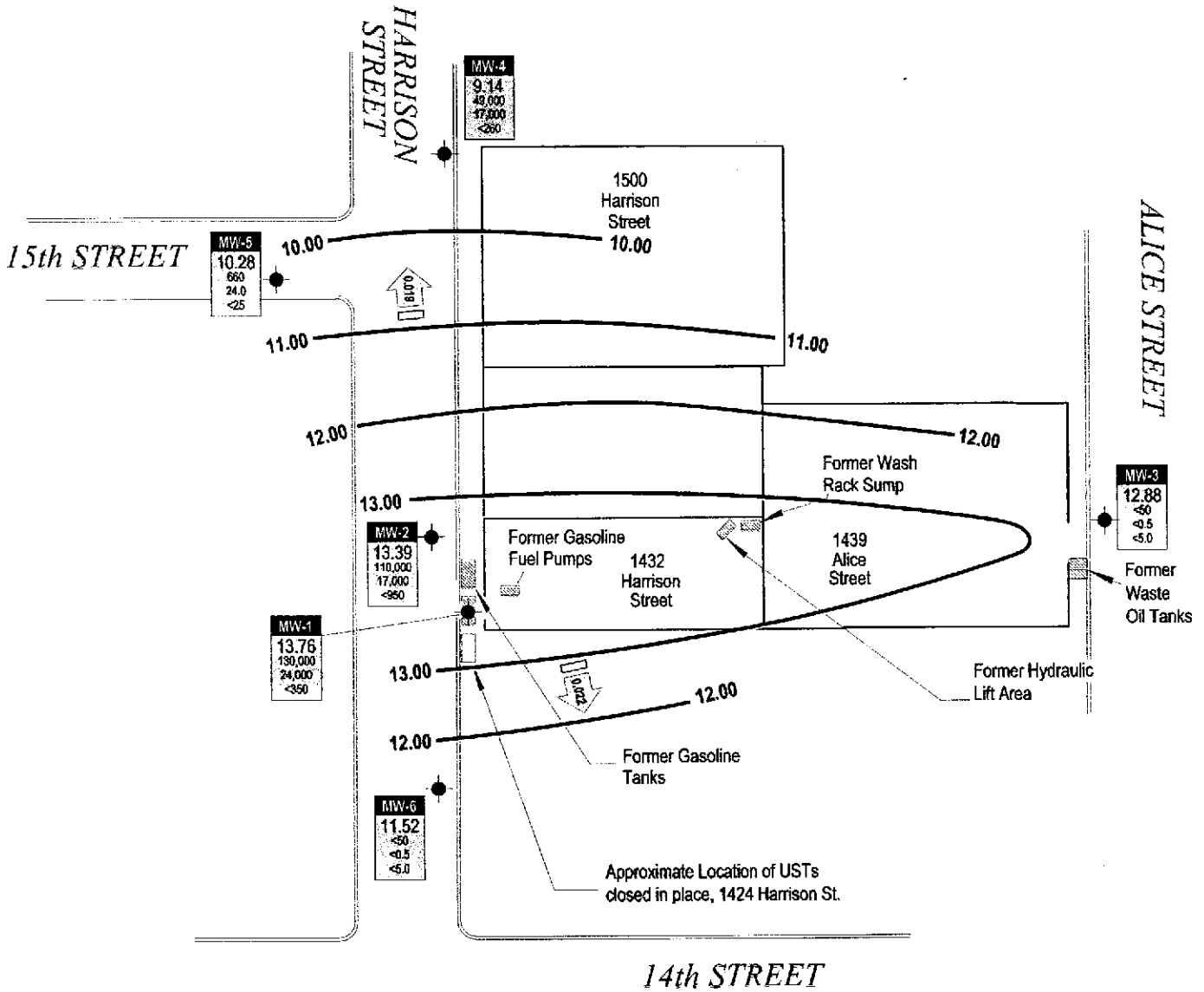
Table 1 - Groundwater Elevations and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B - Laboratory Analytical Results

APPENDIX B

Laboratory Analytical Results



EXPLANATION

- Groundwater monitoring well
- Groundwater elevation contour, in feet above msl, dashed where inferred
- Groundwater flow direction and gradient
- Well ID** — Well designation
- ELEV** — Groundwater elevation, in feet above mean sea level (msl)
- TPH** — Hydrocarbons in groundwater, in ug/l. MTBE analysis for wells MW-2 and MW-4 by EPA Method 8260, all others by EPA Method 8020.
- Benzene**
- MTBE**

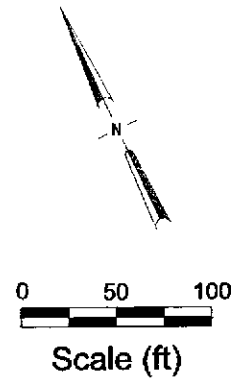


FIGURE 1

L:\88-2004\04K-185\FIGURE\CM01.MP.DWG

1432 Harrison Street

Oakland, California



C A M B R I A

Groundwater Elevation Contours

August 27, 2001

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg ←	Benzene	Toluene	Ethylbenzene (µg/L) →	Xylenes	MTBE	Notes
TOC (ft)											
	3/13/95	35.18	19.15	16.03	500	9,200	23,000	7,000	36,000	--	--
	6/27/95	35.18	18.74	16.44	120,000	23,000	30,000	2,700	13,000	--	--
	7/7/95	35.18	18.80	16.38	120,000	23,000	30,000	2,700	13,000	--	--
	9/28/95	35.18	19.30	15.88	110,000	23,000	29,000	2,500	11,000	--	--
	12/20/95	35.18	20.24	14.94	83,000	980	1,800	2,200	10,000	--	--
	3/26/96	35.18	19.69	15.49	150,000	23,000	32,000	2,800	12,000	<200*	d
	6/20/96	35.18	19.20	15.98	94,000	15,000	23,000	2,400	12,000	<200*	--
	9/26/96	35.18	19.80	15.38	150,000	20,000	29,000	2,800	12,000	ND**	--
	10/28/96	35.18	20.18	15.00	--	--	--	--	--	--	--
	12/12/96	35.18	20.17	15.01	58,000	3,100	11,000	1,700	8,100	220*	--
	3/31/97	35.18	19.67	15.51	38,000	6,000	7,900	690	3,300	ND*	--
	6/27/97	35.18	19.68	15.50	62,000	13,000	16,000	1,300	6,000	ND*	--
	9/9/97	35.18	20.20	14.98	81,000	16,000	18,000	1,800	8,600	ND***	--
	12/18/97	35.18	19.80	15.38	110,000	18,000	26,000	2,200	9,500	ND***	--
	3/12/98	35.18	18.07	17.11	120,000	16,000	26,000	2,200	9,400	ND***	--
	6/22/98	35.18	18.29	16.89	38,000	9,800	9,500	1,500	6,000	--	--
	9/18/98	35.18	19.09	16.09	68,000	12,000	16,000	1,400	5,900	--	--
	12/23/98	35.18	19.67	15.51	180,000	16,000	22,000	2,200	8,300	--	--
	3/29/99	35.18	18.97	16.21	16,600	1,380	1,920	373	1,840	--	--
	6/23/99	35.18	18.25	16.93	41,000	10,000	9,400	1,100	5,000	--	--
	9/24/99	35.18	19.60	15.58	40,600	4,880	3,490	1,090	4,560	--	--
	12/23/99	35.18	20.21	14.97	61,900	6,710	9,320	1,150	5,360	--	--
	3/21/00	35.18	18.93	16.25	98,000	14,000	21,000	1,600	6,900	<1600	a
	7/3/00	35.18	19.38	15.80	140,000	18,000	33,000	2,600	11,000	<200*	a
	9/7/00	35.18	19.83	15.35	110,000	17,000	21,000	2,200	9,700	<100***	a,l
	12/5/00	35.18	20.30	14.88	130,000	19,000	28,000	2,500	11,000	<200	a
	3/6/01	35.18	19.57	15.61	32,000	3,400	3,400	580	2,500	<200	a
	6/8/01	35.18	20.59	14.59	72,000	9,400	9,200	1,300	5,800	<200	a
	8/27/01	35.18	21.79	13.39	110,000	17,000	28,000	2,600	11,000	<950	a
MW-3	8/1/94	--	--	--	<50	<0.5	<0.5	<0.5	<2.0	--	--
	12/21/94	33.97	18.82	15.15	<50	<0.5	<0.5	<0.5	<0.5	--	e
	3/13/95	33.97	17.86	16.11	<50	<0.5	<0.5	<0.5	<0.5	--	f,g
	7/7/95	33.97	18.25	15.72	--	--	--	--	--	--	h

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPHg ←	Benzene	Toluene	Ethylbenzene (µg/L)	Xylenes	MTBE	Notes
	9/28/95	33.97	18.00	15.97	--	--	--	--	--	--	--
	12/20/95	33.97	18.74	15.23	--	--	--	--	--	--	--
	3/26/96	33.97	18.25	15.72	--	--	--	--	--	--	--
	6/20/96	33.97	18.35	15.62	--	--	--	--	--	--	--
	9/26/96	33.97	19.12	14.85	--	--	--	--	--	--	--
	10/28/96	33.97	19.11	14.86	--	--	--	--	--	--	--
	12/12/96	33.97	18.61	15.36	--	--	--	--	--	--	--
	3/31/97	33.97	18.35	15.62	--	--	--	--	--	--	--
	6/27/97	33.97	18.81	15.16	--	--	--	--	--	--	--
	9/9/97	33.97	19.18	14.79	--	--	--	--	--	--	--
	12/18/97	33.97	18.64	15.33	--	--	--	--	--	--	--
	3/12/98	33.97	17.56	16.41	--	--	--	--	--	--	--
	6/22/98	33.97	18.64	15.33	--	--	--	--	--	--	--
	9/18/98	33.97	18.33	15.64	--	--	--	--	--	--	--
	12/23/98	33.97	18.60	15.37	--	--	--	--	--	--	--
	3/29/99	33.97	17.85	16.12	--	--	--	--	--	--	--
	6/23/99	33.97	18.67	15.30	--	--	--	--	--	--	--
	9/24/99	33.97	18.64	15.33	--	--	--	--	--	--	--
	12/23/99	33.97	19.32	14.65	--	--	--	--	--	--	--
	3/21/00	33.97	17.89	16.08	--	--	--	--	--	--	--
	7/3/00	33.97	18.40	15.57	--	--	--	--	--	--	--
	9/7/00	33.97	18.75	15.22	--	--	--	--	--	--	--
	12/5/00	33.97	19.03	14.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	33.97	18.12	15.85	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	33.97	20.02	13.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	8/27/01	33.97	21.09	12.88	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
MW-4	10/28/96	30.77	19.32	11.45	10,000	3,900	420	400	360	<200*	--
	12/12/96	30.77	19.42	11.35	11,000	4,200	410	420	260	32*	--
	3/31/97	30.77	18.67	12.10	ND	ND	ND	ND	ND	ND*	--
	6/27/97	30.77	19.08	11.69	160	49	1.2	ND	5.9	ND*	--
	9/9/97	30.77	19.33	11.44	7,400	5,000	410	230	470	33*	--
	12/18/97	30.77	19.17	11.60	710	170	8.0	ND	39	ND***	--
	3/12/98	30.77	17.68	13.09	1,300	410	21	ND	57	ND***	--

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID TOC (ft)	Date	Top of Casing	Depth to	Groundwater	TPHg ←	Benzene	Toluene	Ethylbenzene (µg/L)	Xylenes	MTBE	Notes
		Elevation (ft)	Groundwater (ft)	Elevation (ft)							
	6/22/98	30.77	17.63	13.14	ND	ND	ND	ND	ND	--	--
	9/18/98	30.77	18.58	12.19	ND	42	1.6	ND	4.8	--	--
	12/23/98	30.77	19.01	11.76	1,900	1,000	76	50	120	--	--
	3/29/99	30.77	18.35	12.42	ND	ND	ND	ND	ND	--	--
	6/23/99	30.77	17.58	13.19	ND	ND	ND	ND	ND	--	--
	9/24/99	30.77	19.05	11.72	9,150	3,270	131	34	537	--	--
	12/23/99	30.77	19.41	11.36	12,200	5,360	275	424	592	--	--
	3/21/00	30.77	18.42	12.35	45,000	16,000	1,100	1,400	1,900	1400* (<35)***	a,l
	7/3/00	30.77	18.82	11.95	33,000	10,000	720	840	1,800	<200*	a
	9/7/00	30.77	19.21	11.56	26,000	8,800	800	740	1,500	<50***	a,l,m
	12/5/00	30.77	19.60	11.17	41,000	11,000	840	930	1,900	<200	a
	3/6/01	30.77	18.24	12.53	1,100	400	5.7	<0.5	20	<5.0	a
	6/8/01	30.77	20.91	9.86	92	19	<0.5	<0.5	1	<5.0	a
	8/27/01	30.77	21.63	9.14	49,000	17,000	1700	1,700	3,200	<260	a
MW-5	10/28/96	31.61	19.88	11.73	90	4.0	0.6	<0.50	<0.50	16*	--
	12/12/96	31.61	20.09	11.52	230	5.6	0.9	ND	0.9	3.6*	--
	3/31/97	31.61	19.24	12.37	90	3.1	ND	ND	ND	ND*	--
	6/27/97	31.61	19.16	12.45	ND	ND	ND	ND	ND	ND*	--
	9/9/97	31.61	19.93	11.68	ND	ND	ND	ND	ND	ND*	--
	12/18/97	31.61	19.77	11.84	ND	ND	ND	ND	ND	ND***	--
	3/12/98	31.61	19.77	11.84	79	2.3	ND	0.8	ND	ND*	--
	6/22/98	31.61	18.08	13.53	ND	ND	ND	ND	ND	--	--
	9/18/98	31.61	19.12	12.49	ND	ND	ND	ND	ND	--	--
	12/23/98	31.61	19.60	12.01	ND	0.8	0.9	ND	ND	--	--
	3/29/99	31.61	18.88	12.73	ND	ND	ND	ND	ND	--	--
	6/23/99	31.61	18.05	13.56	ND	ND	ND	ND	ND	--	--
	9/24/99	31.61	19.61	12.00	ND	ND	ND	ND	ND	--	--
	12/23/99	31.61	20.01	11.60	ND	ND	ND	ND	ND	--	--
	3/21/00	31.61	19.05	12.56	140	<0.5	<0.5	<0.5	<0.5	<5.0	k
	7/3/00	31.61	19.40	12.21	85	8.1	3.1	1.6	7.8	<5.0*	a
	9/7/00	31.61	19.62	11.99	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	12/5/00	31.61	20.25	11.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID TOC (ft)	Date	Top of Casing	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		Elevation (ft)	Groundwater (ft)	Elevation (ft)							
	3/6/01	31.61	19.07	12.54	91	5.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	31.61	20.77	10.84	290	22.0	0.8	<0.5	<0.5	<5.0	a
	8/27/01	31.61	21.33	10.28	660	24.0	2.2	1.3	4.0	<25	a
MW-6	10/28/96	32.89	20.02	12.87	<50	<0.50	<0.50	<0.50	<0.50	<2.0*	--
	12/12/96	32.89	20.18	12.71	ND	ND	ND	ND	ND	ND*	--
	3/31/97	32.89	19.81	13.08	--	--	--	--	--	--	--
	6/27/97	32.89	19.76	13.13	--	--	--	--	--	--	--
	9/9/97	32.89	20.06	12.83	ND	ND	ND	ND	ND	ND*	--
	12/18/97	32.89	19.90	12.99	ND	ND	ND	ND	ND	--	--
	3/12/98	32.89	18.00	14.89	ND	ND	ND	ND	ND	ND*	--
	6/22/98	32.89	18.43	14.46	ND	ND	ND	ND	ND	--	--
	9/18/98	32.89	19.10	13.79	ND	ND	ND	ND	ND	--	--
	12/23/98	32.89	19.61	13.28	ND	ND	ND	ND	ND	--	--
	3/29/99	32.89	18.92	13.97	ND	ND	ND	ND	ND	--	--
	6/23/99	32.89	18.41	14.48	ND	ND	ND	ND	ND	--	--
	9/24/99	32.89	19.61	13.28	ND	ND	ND	ND	ND	--	--
	12/23/99	32.89	20.30	12.59	ND	ND	ND	ND	ND	--	--
	3/21/00	32.89	18.97	13.92	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	7/3/00	32.89	19.46	13.43	59	5.1	2.3	1.1	5.3	<5.0*	a
	9/7/00	32.89	19.95	12.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	--
	12/5/00	32.89	20.50	12.39	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	3/6/01	32.89	19.54	13.35	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	6/8/01	32.89	20.92	11.97	<50	<0.5	<0.5	<0.5	<0.5	<5.1	--
	8/27/01	32.89	21.37	11.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
Trip Blank	3/21/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
	9/7/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data - 1432 Harrison St., Oakland, CA.

Well ID	Date	Top of Casing Elevation	Depth to Groundwater	Groundwater Elevation	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
<i>TOC (ft)</i>		(ft)	(ft)	(ft)	← (µg/L) →						

Abbreviations

TPHg = Total petroleum hydrocarbons as gasoline by EPA method Modified 8015.
 Benzene, toluene, ethylbenzene, xylenes by EPA method 8020.
 -- = Not Sampled/Not Analyzed
 <n = Not detected in sample above n µg/l.
 ND = Not detected at minimum quantitation limit. See laboratory reports.
 µg/l = micrograms per liter
 MTBE = Methyl tert-butyl ether
 * = MTBE by EPA Method 8020
 ** = MTBE by EPA Method 8240
 *** = MTBE by EPA Method 8260
 VOCs = volatile organic compounds

Notes

a = Unmodified or weakly modified gasoline is significant.
 b = Lighter than water immiscible sheen is present.
 c = Liquid sample that contains greater than -5 vol. % sediment.
 d = MTBE result confirmed by secondary column or GC/MS analysis.
 e = Sample analyzed for purgeable hydrocarbons by EPA method 8010, no purgeable halocarbons were detected.
 f = Sample analyzed for VOCs by EPA method 8240, no non-BTEX compounds were detected.
 g = Sample analyzed for Total Petroleum Hydrocarbons as motor oil (TPHmo) by EPA method Modified 8015, no TPHmo was detected.
 h = Analytic sampling discontinued. Approved by Alameda County Department of Environmental Health.
 i = Lighter than gasoline range compounds are significant.
 j = Gasoline range compounds having broad chromatographic peaks are significant.
 k = No recognizable pattern.
 l = Sample diluted due to high organic content.
 m = Liquid sample that contains greater than 5 vol. % sediment.

APPENDIX A

Groundwater Monitoring Field Data Sheets

CAMBRIA

WELL SAMPLING FORM

Project Name: Bosuk	Cambria Mgr: RAS	Well ID: MW-1
Project Number: 180-0214	Date: 8-27-01	Well Yield: ----
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method:	Well Diameter: 8" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 21.19	Total Well Depth: 25.05	Water Column Height: 3.86
Volume/ft: 0.66	1 Casing Volume: 2.50	3 Casing Volumes: 7.50
Purging Device: 4" pvc bailer	Did Well Dewater?:	Total Gallons Purged: 7.50
Start Purge Time: 6:10	Stop Purge Time: 6:59	Total Time: 49mins

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. C	pH	Cond. uS	Comments
6:20	1 2.5	18.1	7.03	720	
6:35	2 5	19.3	6.93	654	slow
7:00	3 7.5	19.5	6.99	612	fechats
					DD = 0.1 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	8-27-01	7:05	400a	HCl	TPH, BTEX, MTBE	2020 2260
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsucik	Cambria Mgr: RAS	Well ID: MW- 2
Project Number: 180-0214	Date: 8-27-01	Well Yield: ----
Site Address: 1432 Harrison St. Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 21.79	Total Well Depth: 25.40	Water Column Height: 361
Volume/ft: 0.16	1 Casing Volume: 0.57	3 Casing Volumes: 1.73
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 2
Start Purge Time: 7:20	Stop Purge Time: 8:17	Total Time: 57 mins

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. C	pH	Cond. uS	Comments
7:45	1	19.7	6.94	720	
8:00	2	19.4	6.75	754	slow recharge
8:18	3	19.9	6.92	739	

DO = 0.17 mg/l

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 2	8-27-01	8:23	4 vol	HCl	THM5 BTEX MIBE	820 8260
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: <u>Borsuk</u>	Cambria Mgr: <u>RAS</u>	Well ID: <u>MW- 3</u>
Project Number: <u>130-0214</u>	Date: <u>8-27-01</u>	Well Yield: <u>----</u>
Site Address: <u>1432 Harrison St. Oakland, Ca</u>	Sampling Method:	Well Diameter: <u>2" pvc</u>
	<u>Disposable bailer</u>	Technician(s): <u>SG</u>
Initial Depth to Water: <u>21.09</u>	Total Well Depth: <u>23.90</u>	Water Column Height: <u>2.81</u>
Volume/ft: <u>0.16</u>	1 Casing Volume: <u>0.44</u>	3 Casing Volumes: <u>1.32</u>
Purging Device: <u>disposable bailer</u>	Did Well Dewater?:	Total Gallons Purged: <u>1.5</u>
Start Purge Time: <u>2:00</u>	Stop Purge Time: <u>2:59</u>	Total Time: <u>59 mins</u>

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.63
6"	1.47

Time	Casing Volume	Temp. C	pH	Cond. uS	Comments
<u>2:15</u>	<u>1</u>	<u>19.5</u>	<u>7.29</u>	<u>620</u>	<u>slow recharge</u>
<u>2:35</u>	<u>2</u>	<u>19.5</u>	<u>7.33</u>	<u>659</u>	
<u>3:00</u>	<u>3</u>	<u>19.7</u>	<u>7.37</u>	<u>692</u>	
					<u>DO = 0.55 mg/l</u>

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
<u>MW- 3</u>	<u>8-27-01</u>	<u>3:05</u>	<u>4100a</u>	<u>HCl</u>	<u>THM5 BTEX MIBE</u>	<u>8020 8260</u>
<u>MW-</u>						

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsa K	Cambria Mgr: RAS	Well ID: MW-4
Project Number: 180-0214	Date: 8-27-01	Well Yield: ----
Site Address: 1432 Harrison St Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SC
Initial Depth to Water: 21.63	Total Well Depth: 24.50	Water Column Height: 2.87
Volume/ft: 0.16	1 Casing Volume: 0.45	3 Casing Volumes: 1.35
Purging Device: disposable bailer	Did Well Dewater?:	Total Gallons Purged: 1.5
Start Purge Time: 3:30	Stop Purge Time: 4:14	Total Time: 44 mins

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. C	pH	Cond. uS	Comments
3:45	1 .5	19.5	7.20	890	slow recharge
4:00	2 1.0	19.2	7.29	922	
4:15	3 1.5	19.3	7.34	954	
					DD = 0.77 m/s

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	8-27-01	4:20	4 voc	HCl	TPHs BTEX MTBE	8020 8260
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW-5
Project Number: 180-0214	Date: 8-27-01 3-1-01	Well Yield: ----
Site Address: 1432 Harrison St Oakland Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 21.33	Total Well Depth: 28.34	Water Column Height: 7.01
Volume/ft: 0.16	1 Casing Volume: 1.12	3 Casing Volumes: 3.36
Purging Device: disposable bailer	Did Well Dewater?:	Total Gallons Purged: 3.5
Start Purge Time: 4:30	Stop Purge Time: 5:03	Total Time: 33 mins

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. C	pH	Cond. uS	Comments
4:40	1	19.4	7.45	614	
4:55	2	19.7	7.20	619	slow recharge
5:04	3	19.7	7.25	652	
					DO = 0.54 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	8-27-01 8-27-01	5:09	4 voa	HCl	TPH ₃ BTEX MTBE Confirma MTBE	8020 8015 8260
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Borsuk	Cambria Mgr: RAS	Well ID: MW- 6
Project Number: 180-0214	Date: 8-27-01 3-16-01	Well Yield: ----
Site Address: 1432 Harrison St Oakland Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
Initial Depth to Water: 21.37	Total Well Depth: 28.00	Technician(s): SG
Volume/ft: 0.16	1 Casing Volume: 1.06	Water Column Height: 6.63
Purging Device: disposable bailer	Did Well Dewater?:	3 Casing Volumes: 3.18
Start Purge Time: 5:20	Stop Purge Time: 5:59	Total Gallons Purged: 3
		Total Time: 39mins

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. C	pH	Cond. uS	Comments
5:30	1	19.4	7.62	854	slow recharge
5:45	2	19.7	7.65	870	
6:00	3	19.7	7.69	894	
					DD = 0.69 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 6	8-27-01 3-16-01	6:05	4 voa	HCl	TPH₅ BTEX MTBE Confirm MTBE	8020 8015 8260
MW-						

APPENDIX B

Laboratory Analytical Results



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Cambria Environmental Technology 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #540-0188; Borsuk	Date Sampled: 08/27/01
		Date Received: 08/30/01
	Client Contact: Ron Scheele	Date Extracted: 08/30/01
	Client P.O:	Date Analyzed: 08/30/01

09/06/01

Dear Ron:

Enclosed are:

- 1). the results of 6 samples from your #540-0188; Borsuk project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



QC REPORT

EPA 8015m + 8020

Date: 08/31/01

Extraction: TTLC

Matrix: Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 90401		Instrument: GC-3					
Surrogate1	ND	105.0	102.0	100.00	105	102	2.9
Xylenes	ND	32.8	32.8	30.00	109	109	0.0
Ethylbenzene	ND	10.8	10.8	10.00	108	108	0.0
Toluene	ND	10.7	10.8	10.00	107	108	0.9
Benzene	ND	10.3	10.3	10.00	103	103	0.0
MTBE	ND	10.0	10.1	10.00	100	101	1.0
TPH (gas)	ND	81.2	84.3	100.00	81	84	3.8

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation

27539 ZC459

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #D7
PACIFICCO, CA 94553

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HOUR 48 HOUR 5 DAY

Report To: **Ron Scheels**

Bill To: **Cambridge Env**

Company: Cambria Environmental Technology

1146 65th Street, Suite C

Oakland, CA 94608

**6262 Hollis St
Emeryville, Ca**

Tele: (510) 420-0700

Fax: (510) 420-9170

Project #: **540-0188**

Project Name: **Corcut**

Project Location: **1432 Harrison St. Oakland Ca**

Sampler Signature: **J. Hill**

Analysis Request

Other

Comments

BTEX & TPH as Gas (602/8020 + 8015) MTDE

TPH as Diesel (8015)

Total Petroleum Oil & Grease (5520 E&F7B&F)

Total Petroleum Hydrocarbons (418.1)

EPA 601 / 8010

BTEX ONLY (EPA 602 / 8020)

EPA 608 / 8080

EPA 608 / 8080 PCB's ONLY

EPA 624 / 8240 / 8260

EPA 625 / 8270

PAH's / PNA's by EPA 625 / 8270 / 8310

CAM-17 Metals

LUFT 5 Metals

Lead (7240/7421/259.2/6010)

RCI

confirm all MRSLs by 7/26/01

+
+
+
+
+
+

SAMPLE ID	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED									
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other						
MW-1		8-27-01	7:05	4	VOL	X					X	X								
MW-2		8-27-01	8:23	4	VOL	X					X	X								
MW-3		8-27-01	3:05	4	VOL	X					X	X								
MW-4		8-27-01	4:20	4	VOL	X					X	X								
MW-5		8-27-01	5:09	4	VOL	X					X	X								
MW-6		8-27-01	6:05	4	VOL	X					X	X								

76602
76603
76604
76605
76606
76607

Relinquished By: J. Hill	Date: 8-28-01	Time: 4:00	Received By: secure location
Relinquished By: [Signature]	Date: 8-30	Time: 11:15	Received By: Jose Aguirre #232
Relinquished By: Jose Aguirre	Date: 9/30/01	Time: 4:30	Received By: Uma A. Butler

Remarks: